

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P389069

Luminaire Tested: **24CZ2-95VHE-UNV-L940-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P389069
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

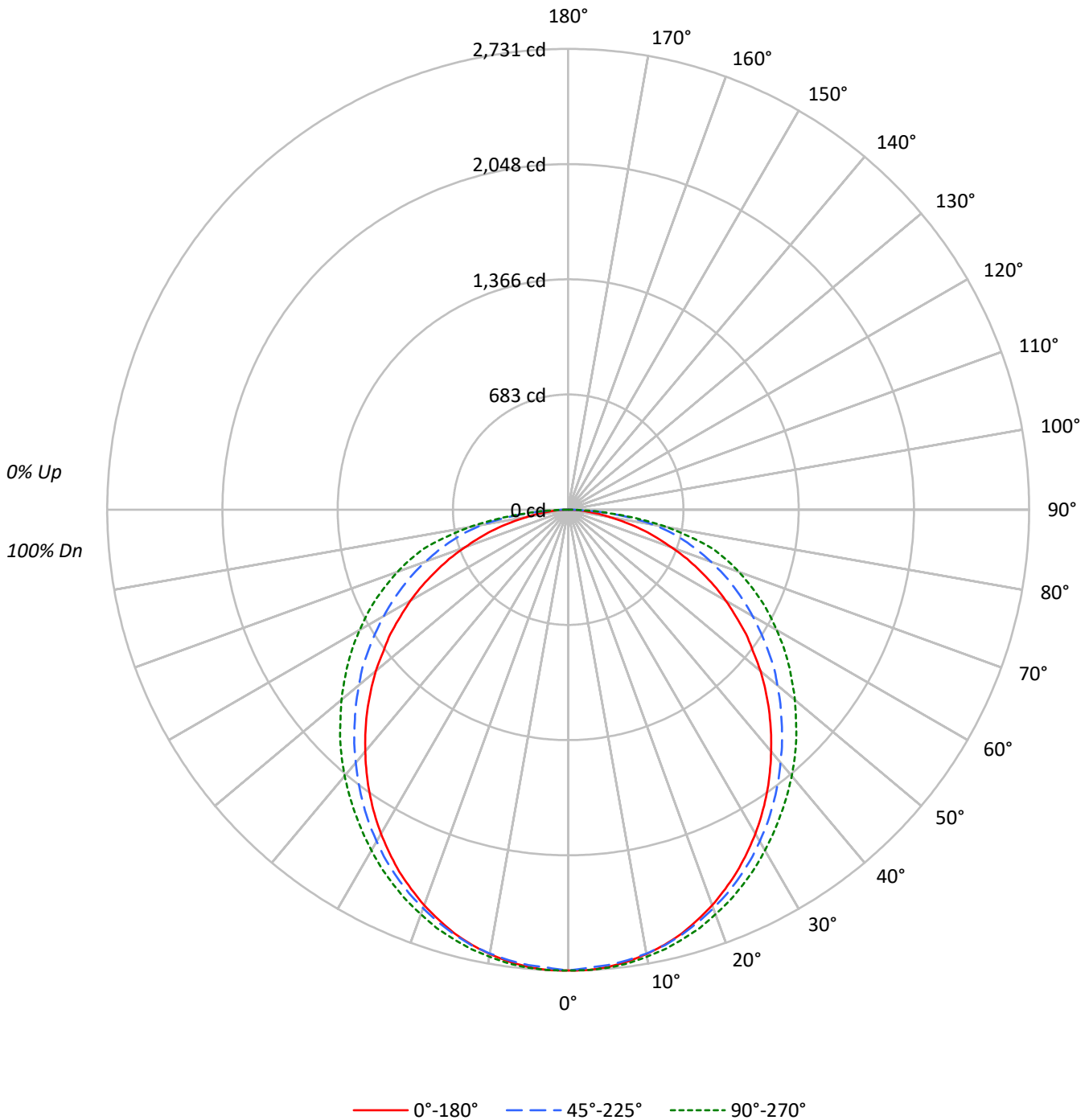
Lumens per Lamp: N/A
Luminaire Lumens: 8133.1 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3674	3674	3674
5°	3673	3659	3681
10°	3653	3649	3675
15°	3622	3630	3668
20°	3572	3599	3653
25°	3514	3566	3639
30°	3445	3526	3622
35°	3371	3482	3611
40°	3285	3437	3619
45°	3202	3404	3636
50°	3114	3386	3670
55°	3018	3381	3738
60°	2900	3397	3835
65°	2748	3448	4001
70°	2552	3535	4229
75°	2328	3711	4586
80°	1914	3996	4585
85°	1467	3688	3940



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	258.3	3.2
10°-20°	737.3	9.1
20°-30°	1109.5	13.6
30°-40°	1329.6	16.3
40°-50°	1385.6	17.0
50°-60°	1289.2	15.9
60°-70°	1061.8	13.1
70°-80°	723.1	8.9
80°-90°	238.7	2.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	2105.1	25.9
0°-40°	3434.7	42.2
0°-60°	6109.5	75.1
0°-90°	8133.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8133.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2731	2731	2731	2731	2731	
5°	2720	2720	2709	2722	2725	258
15°	2600	2603	2606	2630	2633	733
25°	2367	2378	2402	2443	2451	1090
35°	2052	2076	2120	2177	2199	1283
45°	1683	1718	1789	1878	1911	1298
55°	1287	1330	1441	1555	1593	1147
65°	863	936	1083	1211	1257	857
75°	448	548	714	842	882	472
85°	95	185	239	255	255	118
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2730.7	2730.7	2730.7	2730.7	2730.7
2.5°	2730.7	2730.7	2717.1	2730.7	2730.7
5°	2719.8	2719.8	2708.9	2722.5	2725.2
7.5°	2700.8	2703.5	2692.7	2708.9	2711.7
10°	2673.7	2676.4	2670.9	2687.2	2689.9
12.5°	2641.1	2643.8	2643.8	2662.8	2665.5
15°	2600.4	2603.1	2605.8	2630.2	2632.9
17.5°	2548.8	2556.9	2562.4	2592.2	2597.7
20°	2494.5	2502.7	2513.5	2546.1	2551.5
22.5°	2432.1	2442.9	2461.9	2497.2	2505.4
25°	2366.9	2377.8	2402.2	2442.9	2451.1
27.5°	2293.6	2309.9	2339.8	2383.2	2394.1
30°	2217.6	2233.9	2269.2	2315.4	2331.6
32.5°	2136.2	2157.9	2198.6	2250.2	2266.5
35°	2052.1	2076.5	2119.9	2176.9	2198.6
37.5°	1962.5	1989.6	2041.2	2103.6	2130.8
40°	1870.2	1902.8	1957.1	2030.4	2060.2
42.5°	1777.9	1807.8	1875.6	1954.3	1986.9
45°	1682.9	1718.2	1788.8	1878.3	1910.9
47.5°	1585.2	1620.5	1704.6	1799.6	1829.5
50°	1487.5	1522.8	1617.8	1718.2	1753.5
52.5°	1381.6	1427.8	1536.3	1636.8	1672.1
55°	1286.6	1330.0	1441.3	1555.3	1593.3
57.5°	1178.0	1229.6	1351.8	1471.2	1511.9
60°	1077.6	1131.9	1262.2	1384.3	1425.0
62.5°	974.5	1034.2	1172.6	1297.5	1343.6
65°	863.2	936.5	1083.0	1210.6	1256.8
67.5°	762.7	838.7	993.5	1123.8	1164.5
70°	648.7	741.0	898.5	1028.7	1074.9
72.5°	551.0	643.3	808.9	936.5	982.6
75°	447.9	548.3	713.9	841.5	882.2
77.5°	344.7	456.0	621.6	719.3	732.9
80°	247.0	363.7	515.7	572.7	591.7
82.5°	173.7	279.6	380.0	418.0	428.9
85°	95.0	184.6	238.9	255.2	255.2
87.5°	40.7	78.7	95.0	97.7	100.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)